Sumitomo Forestry to Launch New Big-Frame Construction Method with Wooden Beam Rahmen Structure

—Improved Earthquake Resistance and Greater Design Flexibility—

Sumitomo Forestry Co., Ltd. (President and Representative Director: Akira Ichikawa; Head Office: Chiyoda-ku, Tokyo) announced today the launch of the new Big-Frame (BF) construction method on October 6. The new BF construction method offers enhanced seismic performance and improved compatibility with skeleton infill configurations, and features strong structural framework, flexible floor plans, large interior spaces designed to provide long-term durability for years of use.

In conjunction with the new BF launch, Sumitomo Forestry is also releasing updated versions of two BF products: *BF-Si*, available in single-story and two-story configurations, and the three-story *Proudio*. BF construction method is highly durable wooden homes offering excellent earthquake and fire resistance, good compatibility with skeleton infill configurations and high versatility designed to accommodate future modifications.

■ About the Big-Frame Construction Method

Developed exclusively by Sumitomo Forestry, BF construction method was the first wooden beam Rahmen structure method to be successfully patented in Japan (patent No. 3713256) when launched in February 2005.

Instead of load-bearing walls, BF construction method uses "big columns" (heavy section large columns) that are linked together directly with dedicated "metal-touch" joiners (purpose-specific BF metal joints). This creates an extremely strong structural framework without need for through pillars, thereby allowing far more design flexibility since columns can be located at different points on different stories. By employing a rigid frame structure, BF construction method is able to accommodate large doors and windows in walls as well as spacious interior design configurations.

On houses with narrow street frontage, big columns permit allow larger door and window openings than conventional construction techniques to maximize natural light and ventilation characteristics.

■ Key Improvements in the New BF Construction Method

- 1. Upgraded metal joints deliver greater strength and rigidity

 The BF method employs dedicated BF metal joints that link big columns and beams and other members carrying direct load. The result is a high-rigidity, high-strength structural framework. Function has been improved by further strengthening and hardening the joint boxes to minimize deformation and increasing toughness of joints through the introduction of "tough bolts" that are designed with excellent plastic deformability.
- 2. Significant performance enhancements to big columns
 Big columns measuring 560 mm in width (more than five times the size of a standard 105-mm square column) constitute the key structure component in BF construction method and serve as load-bearing walls. The enhanced big column delivers shear resistance of walls equivalent to 22.4, a 40% increase on the previous version (16.2).
- 3. Better compatibility with skeleton infill construction
 BF construction method is predicated on the skeleton infill approach, where the building

design makes a clear distinction between the skeleton (the structural frame that supports the entire building) and the infill (interior partitions, fixtures and fittings that can be configured to suit the needs of the occupants). The improved big columns allow better optimization of column numbers for greater design flexibility in both single-story and multi-story homes up to three stories. The floor plan can be reconfigured to accommodate lifestyle changes and major events such as the arrival of children, and growing-up, two and three-generation households, opening a home business, or renting out a portion of the home to generate extra revenue. This approach is also more conducive to future renovation.

■ Advertising and Promotion

The launch of the new BF construction method will be accompanied by a comprehensive television, magazine and website advertising campaign designed to boost product awareness. The third television commercial to promote BF construction stars sumo *yokozuna* champion Sho Hakuho. It will be aired from October 5, one day prior to the official launch.

The commercials are designed to showcase the strength of BF construction method, showing how it is able to hold a ten-ton sumo ring on the second story and sumo wrestlers training on the third story without any structural impact as well as a yokozuna sumo champion displaying his strength.

■ High-rigidity, High-strength Structural Framework Affords Interior Design Flexibility

BF-Si, available in single-story and two-story configurations, offers improved big column performance to enable more flexible interior floor plans featuring open spaces free of partitions and large windows to let in plenty of natural light. The rigid Rahmen structure can be further adapted to suit narrow frontage sites and future modifications as needs change over time.

The three-story *Proudio* is an adaptable timber home that utilizes the full limits of the site in all directions (in accordance with the relevant laws and regulations) to deliver maximum comfort and convenience in an urban setting. Three construction methods are available: Big Frame, multi-balance and two-by-four, offering an optimal construction.

■ Product Overview

Name: BF-Si

Launch date: October 6, 2012

Sales area: Nationwide except Okinawa
Construction: Big-Frame construction

Body price: From \(\frac{1}{2}\)550,000 per 3.3 m² (tax included)

Name: Proudio

Launch date: October 6, 2012

Sales area: Nationwide except Okinawa

Construction: Choice of multi-balance, Big-Frame or two-by-four

Body price: From $\frac{4620,000}{1000}$ per 3.3 m² (tax included)